

DEPARTMENT OF TRANSPORTATION**National Highway Traffic Safety Administration****[Docket No. NHTSA 2004-18745] --//****Grant of Applications of Three Motorcycle Manufacturers for
Temporary Exemptions and Renewal of Temporary Exemptions
From Federal Motor Vehicle Safety Standard No. 123**

AGENCY: National Highway Traffic Safety Administration (NHTSA), DOT.

ACTION: Grant of applications for temporary exemptions and renewals of temporary exemptions from a Federal motor vehicle safety standard.

SUMMARY: This notice grants the applications by three motorcycle manufacturers (Honda, Piaggio, and Yamaha) for temporary exemptions, and renewal of temporary exemptions, from a provision in the Federal motor vehicle safety standard on motorcycle controls and displays specifying that a motorcycle rear brake, if provided, must be controlled by a right foot control. We are permitting each manufacturer to use the left handlebar as an alternative location for the rear brake control. Each applicant has asserted that "compliance with the standard would prevent the manufacturer from selling a motor vehicle with an overall level of safety at least equal to the overall safety level of nonexempt vehicles."

DATES: The grant of each application for temporary exemption expires September 1, 2007.

FOR FURTHER INFORMATION CONTACT: For non-legal issues, you may contact Mr. Michael Pyne, Office of Crash Avoidance Standards at (202) 366-4171. His FAX number is: (202) 493-2739.

For legal issues, you may contact Ms. Dorothy Nakama, Office of the Chief Counsel at (202) 366-2992. Her FAX number is: (202) 366-3820.

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NHTSA

You may send mail to these officials at: National Highway Traffic Safety Administration, 400 Seventh St., S.W., Washington, D.C. 20590.

SUPPLEMENTARY INFORMATION:

I. Background

49 U.S.C. Section 30113(b) provides the Secretary of Transportation the authority to exempt, on a temporary basis, motor vehicles from a motor vehicle safety standard under certain circumstances. The exemption may be renewed, if the vehicle manufacturer reapplies. The Secretary has delegated the authority for Section 30113(b) to NHTSA.

NHTSA has established regulations at 49 CFR Part 555, Temporary Exemption from Motor Vehicle Safety and Bumper Standards. Part 555 provides a means by which motor vehicle manufacturers may apply for temporary exemptions from the Federal motor vehicle safety standards on the basis of substantial economic hardship, facilitation of the development of new motor vehicle safety or low-emission engine features, or existence of an equivalent overall level of motor vehicle safety.

Federal Motor Vehicle Safety Standard (FMVSS) No. 123, Motorcycle controls and displays (49 CFR Section 571.123) specifies requirements for the location, operation, identification, and illumination of motorcycle controls and displays, and requirements for motorcycle stands and footrests. Among other requirements, FMVSS No. 123 specifies that for motorcycles with rear wheel brakes, the rear wheel brakes must be operable through the right foot control, although the left handlebar is permissible for motor-driven cycles (See S5.2.1, and Table 1, Item 11). Motor-driven cycles are motorcycles with motors that produce 5 brake horsepower or less (See 49 CFR Section 571.3, Definitions).

On November 21, 2003, NHTSA published in the Federal Register (68 FR 65667) a notice proposing two regulatory alternatives to amend FMVSS No. 123. Each alternative would require that for certain motorcycles without a clutch control lever, the rear brakes must be controlled by a lever located on the left handlebar. We also requested comment on industry practices and plans regarding controls for motorcycles with integrated brakes. If this proposed rule is made final, the left handlebar would be permitted as an alternative location for the rear brake control.

II. Applications for Temporary Exemption from FMVSS No. 123

NHTSA has received applications for temporary exemption from S5.2.1 and Table 1, Item 11 from three motorcycle manufacturers: Honda Motor Company, Ltd. (Honda); Piaggio & C. S.p.A. and Piaggio USA, Inc (Piaggio); and Yamaha Motor Corporation USA (Yamaha). Honda asks for a new temporary exemption for the PS250 (for Model Years (MYs) 2005 and 2006), and an extension of an existing temporary exemption for the NSS250 (for MYs 2005-2006). Piaggio asks for new temporary exemptions for the Vespa GT200 (for MYs 2005-2006), the Piaggio BV200 (for MYs 2005 – 2006) and the Piaggio X9-500 (for MYs 2005 –2006). Piaggio asks for an extension of an existing temporary exemption for the Vespa ET4 (for MYs 2004– 2006). Yamaha asks for a new temporary exemption for the YP-400 (for MYs 2005–2006), which Yamaha asserts is “equivalent” to the Yamaha Vino 125. The Vino 125 is the subject of a grant of a temporary exemption from Standard No. 123 until March 1, 2005 (See 68 FR 15552; March 31, 2003). All of these motorcycles are considered “motor scooters.”

The safety issues are identical in the case of all of these motorcycles. Honda, Piaggio, and Yamaha have applied to use the left handlebar as the location for the rear brake control on their motorcycles whose engines produce more than 5 brake horsepower (all of the motorcycles

specified in the previous paragraph). The frames of each of the motorcycles that are the subject of these applications for temporary exemptions have not been designed to mount a right foot operated brake pedal (i.e., these motor scooters have a platform for the feet and operate only through hand controls). Applying considerable stress to this sensitive pressure point of the motor scooter frame by putting on a foot operated brake control could cause failure due to fatigue, unless proper design and testing procedures are performed.

III. Why the Petitioners Claim the Overall Level of Safety of the Motorcycles Equals Or Exceeds that of Non-exempted Motorcycles

The applicants have argued that the overall level of safety of the motorcycles covered by their petitions equals or exceeds that of a non-exempted motorcycle for the following reasons. Each manufacturer stated that motorcycles for which applications have been submitted are equipped with an automatic transmission. As there is no foot-operated gear change, the operation and use of a motorcycle with an automatic transmission is similar to the operation and use of a bicycle, and the vehicles can be operated without requiring special training or practice. Each manufacturer provided the following additional arguments:

Honda – Honda provided separate applications for the new exemption for the PS250 and the renewal of the exemption for the NSS250. In both cases, Honda provided test data showing how each motorcycle met the FMVSS No. 122 Motorcycle brake systems test specified at S5.3, service brake system – second effectiveness test. Honda provided separate sets of data showing the results of a second effectiveness comparison test data for the NSS250 and the PS250 equipped with the combined brake system. The test results for the NSS250 and the PS250 were compared to results for similarly sized models without the combined brake systems. In all cases,

the NSS250 and the PS250 had shorter braking stopping distances than did the models without the combined brake systems.

Honda also provided results of ECE 78 test data for the NSS250 and PS250, equipped with the combined brake system, and provided test data comparing stopping distances on various surfaces using the rear brake control only between an NSS250 and a PS250 equipped with a combined brake system and a similar model without a combined brake system.

Piaggio – Piaggio stated that brake tests in accordance with FMVSS No. 122 Motorcycle brake systems, were conducted on all Vespa and Piaggio models and stated that all models “easily exceed” the performance requirements of FMVSS No. 122. Piaggio also stated that Vespa and Piaggio vehicles fully meet the 93/14 EEC brake testing requirements, and enclosed a copy of the brake testing report of the “Ministero dei Trasporti e della Navigazione” Italy or TUV/VCA.

Piaggio cited several reasons why it believes the left handlebar rear brake actuation force provides an overall level of safety that equals or exceeds a motorcycle with a right-foot rear brake control. Among these reasons, Piaggio cited the “state of the art” hydraulically activated front disc brakes used on Vespa and Piaggio vehicles, as providing more than enough brake actuation force available to the “hand of even the smallest rider.” Piaggio explained that because of the greater physical size of a foot-powered brake pedal, mechanical efficiency is lower and inertia about the pivot is higher. This results in less effective feedback, or what Piaggio describes as “feeling” of the actuation system. Piaggio asserted that because there is more sensitivity to brake feedback from the hand lever, use of a hand lever reduces the probability of inadvertent wheel locking in an emergency braking situation. Piaggio stated that

inexperienced riders may lose control of their motorcycle because of rear wheel locking, and that use of the hand lever reduces the possibility of rear wheel locking.

Yamaha – Yamaha cited an August 1999 study, “Motorcycle Braking Control Response Study” by T. J. Carter, as showing that handlebar-mounted rear brakes have an equivalent level of safety to that of right-foot control rear brakes, because handlebar-mounted rear brakes have equivalent reaction times to the foot control. Yamaha analogized motorcycle operators changing from the dual hand control wheel brakes to the hand/foot arrangement, to that of an automobile driver going from an automatic transmission to a stick shift. Yamaha asserted: “[t]here have been no required warnings of ‘change’ or ‘difference in operating character’ to the automobile operator, nor has there been shown to be a lessened or lowered level of equivalent safety for the two different systems on the same platform (automobiles).”

IV. Why Petitioners Claim an Exemption Would Be in the Public Interest and Would be Consistent with the Objectives of Motor Vehicle Safety

Each manufacturer offered the following reasons why temporary exemptions for their motorcycles would be in the public interest and would be consistent with the objectives of motor vehicle safety:

Honda – For both the NSS250 and the PS250, Honda asserted that it is “certain” that the level of safety of the two motorcycles “is equal to similar vehicles certified under FMVSS No. 123; therefore, we seek renewal of the [or a new] temporary exemption from this standard.” Honda noted that both the NSS250 and the PS250 are equipped with a combined brake system. The combined brake system uses both front and rear disc brakes and employs a unique three-piston front caliper. Applying the right handlebar brake lever activates the front brake caliper.

Applying the left handlebar brake lever activates one piston in the front brake caliper and the rear brake caliper.

Honda asserted that with the combined brake system, the rider is able to precisely control brake force distribution, depending on which control is used. Applying the right handlebar lever activates the outer two pistons in the front caliper. In this case, the front wheel receives a larger portion of the braking force. Applying the left handlebar lever activates the center piston in the front caliper and the single piston in the rear caliper. A valve has been installed in this system to slightly delay the brake force at the front wheel. This delay improves braking by allowing the rear of the scooter to settle, which helps to minimize front nose dive and weight shift. Honda further noted that using both controls at once activates all pistons in both calipers for maximum braking force.

For the NSS250, Honda plans to offer some models with an optional antilock-brake system.

Piaggio - Piaggio stated that with the introduction of automatic transmission engines on motorcycles, “the Code of Federal Regulations is completely out of harmonization with the majority of countries in the world as far as the FMVSS 123 – S5.2.1 is concerned.” Piaggio asserted all European Community countries permit motorcycle manufacturers to make their own decision whether to use a left handlebar control or a right foot control for rear wheel brakes.

Yamaha –Since there have been many previous exemptions to Standard No. 123, S5.2.1, and Table 1, Item 11 granted, Yamaha asserts that “the grounds and precedent are clear and a redundant reiteration of same is not in order to preserve precious Agency time.” Yamaha concluded that its “request is consistent with the intent of the National Traffic and Motor Vehicle Safety Act and offers an equivalent level of safety for consumers and other motorists/highway

users.”

V. Notification of Receipt of Applications and Public Comments

On August 2, 2004 (60 FR 46205) [Docket No. NHTSA-2004-18745], we published a Federal Register notice announcing the receipt of applications for temporary exemptions and of renewals of exemptions from Honda, Piaggio, and Yamaha. We published each applicant's reasons why the overall safety of the motorcycles equals or exceeds that of non-exempted motorcycles, and why each applicant claimed an exemption would be in the public interest and would be consistent with the objectives of motor vehicle safety. We asked for public comment on each application.

In response to the August 2, 2004 document, we received eight comments. All commenters except for one, favored granting the applications for temporary exemption from the requirements of item 11, column 2, table 1 of FMVSS No. 123. The commenter who did not favor granting the applications wrote that placing the rear brake control on the left handle bar would be “confusing to the rider” because historically the clutch release has been in that location. The commenter did not state if the confusion has been his personal experience, and did not cite specific instances where such confusion may have led to a rider losing control of the motorcycle or led to a crash. Five of the commenters wrote in favor of a specific manufacturer's product.

VI. NHTSA's Decisions on the Applications

It is evident that, unless Standard No. 123 is amended to permit or require the left handlebar brake control on motor scooters with more than 5 hp, the petitioners will be unable to sell their motorcycles if they do not receive a temporary exemption from the requirement that the right foot pedal operate the brake control. It is also evident from the previous grants of similar petitions that we have repeatedly found that the motorcycles exempted from the brake control

location requirement of Standard No. 123 have an overall level of safety at least equal to that of nonexempted motorcycles.

In consideration of the foregoing, we hereby find that the petitioners have met their burden of persuasion that to require compliance with Standard No. 123 would prevent these manufacturers from selling a motor vehicle with an overall level of safety at least equal to the overall safety level of nonexempt vehicles. We further find that a temporary exemption is in the public interest and consistent with the objectives of motor vehicle safety. Therefore:

1. NHTSA Temporary Exemption No. **EX-2000-2**, exempting Honda Motor Company, Ltd. from the requirements of item 11, column 2, table 1 of 49 CFR 571.123 Standard No. 123 Motorcycle Controls and Displays, that the rear wheel brakes be operable through the right foot control, is hereby extended to expire on September 1, 2007. This exemption applies only to the Honda NSS250.

2. Honda Motor Company, Ltd. is hereby granted NHTSA Temporary Exemption No. **EX-04-2** from the requirements of item 11, column 2, table 1 of 49 CFR 571.123 Standard No. 123 Motorcycle Controls and Displays, that the rear wheel brakes be operable through the right foot control. This exemption applies only to the Honda PS250. This exemption will expire on September 1, 2007.

3. NHTSA Temporary Exemption No. **EX-2002-3** exempting Piaggio & C. S.p.A. and Piaggio USA, Inc. from the requirements of item 11, column 2, table 1 of 49 CFR 571.123 Standard No. 123 Motorcycle Controls and Displays, that the rear wheel brakes be operable through the right foot control, is hereby extended to expire on September 1, 2007. This exemption applies only to the Vespa ET4.

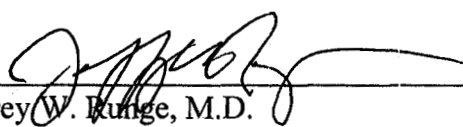
4. Piaggio & C. S.p.A. and Piaggio USA, Inc. are hereby granted NHTSA Temporary Exemption No. **EX-04-3** from the requirements of item 11, column 2, table 1 of 49 CFR 571.123 Standard No. 123 Motorcycle Controls and Displays, that the rear wheel brakes be operable through the right foot control. This exemption applies only to the following Piaggio models: Vespa GT200, Piaggio BV200, and the Piaggio X9-500. This exemption will expire on September 1, 2007.

5. Yamaha Motor Corporation USA is hereby granted NHTSA Temporary Exemption No. **EX-04-4** from the requirements of item 11, column 2, table 1 of 49 CFR 571.123 Standard No. 123 Motorcycle Controls and Displays, that the rear brakes be operable through the right foot control. This exemption applies only to the Yamaha YP-400 model. The exemption will expire on September 1, 2007.

Authority: 49 U.S.C. Section 30113; delegations of authority at 49 CFR 1.50 and 501.4.

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Issued on:



Jeffrey W. Kunge, M.D.
Administrator

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